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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,837	07/07/2004	Tadao Nakaya	NFA-0204	8394

23353 7590 07/21/2005

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WASHINGTON, DC 20036

EXAMINER

THOMPSON, CAMIE S

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/500,837

Applicant(s)

NAKAYA ET AL.

Examiner

Camie S. Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 16-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 16-24 is/are rejected.
- 7) ☒ Claim(s) 25-32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/6/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

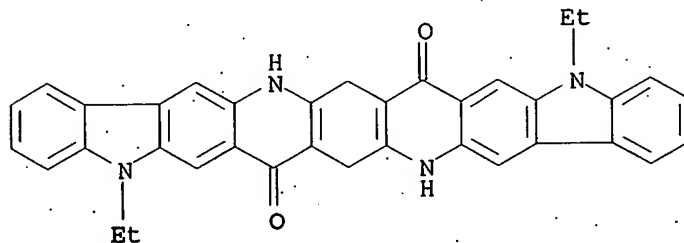
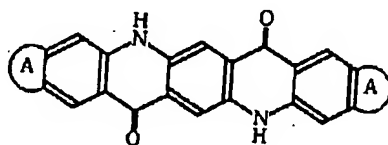
1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 04-224579.

The Japanese reference discloses quinacridone derivative compounds such as



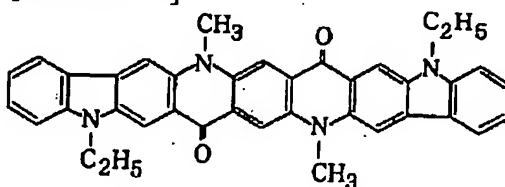
Additionally, the Japanese reference reads on the instant claims when A is a N-ethylalkylindoline ring or a substituted (aryl) cyclopentane ring.

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3. Claims 1 and 16-24 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 11-087059.

The Japanese reference discloses an organic luminescent element comprising a luminous layer sandwich between a pair of electrodes. Additionally, the reference discloses that the luminous layer comprises a compound such as formula 11

[Formula 11]



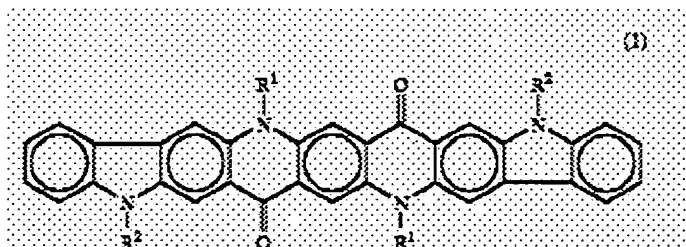
The Japanese reference reads on the instant claims when  $R^2$  is an alkyl group (methyl) and  $R^1$  is an alkyl group (ethyl). Also, the reference discloses in paragraphs 0045 and 0046 that the organic luminescent element comprises a substrate with the anode formed on the substrate as per instant claims 17-18. Paragraph 0040 of the Japanese reference discloses that the organic luminescent element can comprise at least one luminous layer as per instant claim 19. In paragraph 0041, the reference discloses that it is desirable for the organic luminescent element to have a hole transportation component, a luminescence component and an electron transportation component as per instant claim 20. Claims 21-24 are product-by-process claims. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made

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by a different process. See MPEP 2113. The manner in which the light-emitting layer is prepared does not make the light-emitting layer of the Japanese reference different from the light emitting layer as instantly claimed. Both the Japanese reference and the instant invention claim a light-emitting layer comprising a compound such as formula 11.

4. Claims 25-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art does not provide for the recited layered article comprising at least one luminescent compound selected from the group consisting of

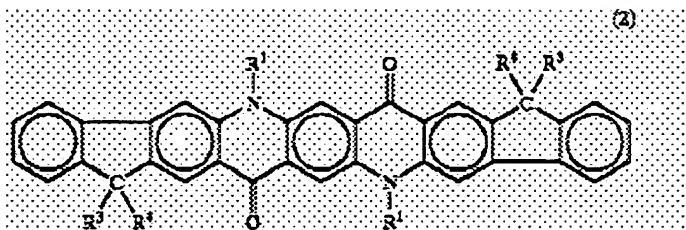
(A) a luminescent compound capable of emitting white light that has a structure represented by formula (1)



wherein  $R^1$  is a hydrogen atom, alkyl group, or an aryl or alkyl aryl group that may have least one substituent, wherein two  $R^1$ 's may be the same or different from each other;  $R^2$  is a hydrogen atom, alkyl group, or an aryl or alkyl aryl group that may have least one substituent, wherein two  $R^2$ 's may be the same or different from each other; and  $R^1$  and  $R^2$  may be the same or different from each other, and

(B) a luminescent compound capable of emitting white light that has a structure represented by formula (2)

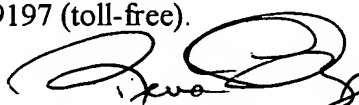
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wherein R<sup>1</sup> is a hydrogen atom, alkyl group, or an aryl or alkyl aryl group that may have least one substituent, wherein two R<sup>1</sup>'s may be the same or different from each other; each of R<sup>3</sup> and R<sup>4</sup> is a hydrogen atom, an alkyl group, or an aryl or alkyl aryl group that may have at least one substituent, wherein R<sup>3</sup> and R<sup>4</sup> may be the same or different from each other; and two R<sup>3</sup>'s may be the same or different, and two R<sup>4</sup>'s may be the same or different, further including the layered article having a planar or tubular shape.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (571) 272-1530. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena L Dye, can be reached at (571) 272-3186. The fax phone number for the Group is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
RENA DYE  
SUPERVISORY PATENT EXAMINER  
A.U. 1774 7/19/05